



## UNITED STATES DEPARTMENT OF COMMERCE

## Patent and Trademark Office

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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.
08/759,956	12/03/96	KOJIMA	T 043566

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LM61/0601

EXAMINER

TRAN, K

ART UNIT	PAPER NUMBER
2731	

DATE MAILED: 06/01/98

Please find below and/or attached an Office communication concerning this application or proceeding.

Commissioner of Patents and Trademarks

**Office Action Summary**Application No.  
08/759,956

Applicant(s)

KOJIMA et al

Examiner

Khai Tran

Group Art Unit

2731

 Responsive to communication(s) filed on Apr 9, 1997 This action is FINAL. Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11; 453 O.G. 213.

A shortened statutory period for response to this action is set to expire 3 month(s), or thirty days, whichever is longer, from the mailing date of this communication. Failure to respond within the period for response will cause the application to become abandoned. (35 U.S.C. § 133). Extensions of time may be obtained under the provisions of 37 CFR 1.136(a).

**Disposition of Claims** Claim(s) 1-14 is/are pending in the application.

Of the above, claim(s) \_\_\_\_\_ is/are withdrawn from consideration.

 Claim(s) 13 and 14 is/are allowed. Claim(s) 1, 2, and 4 is/are rejected. Claim(s) 3, and 5-12 is/are objected to. Claims \_\_\_\_\_ are subject to restriction or election requirement.**Application Papers** See the attached Notice of Draftsperson's Patent Drawing Review, PTO-948. The drawing(s) filed on \_\_\_\_\_ is/are objected to by the Examiner. The proposed drawing correction, filed on \_\_\_\_\_ is  approved  disapproved. The specification is objected to by the Examiner. The oath or declaration is objected to by the Examiner.**Priority under 35 U.S.C. § 119** Acknowledgement is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d). All  Some\*  None of the CERTIFIED copies of the priority documents have been received. received in Application No. (Series Code/Serial Number) \_\_\_\_\_. received in this national stage application from the International Bureau (PCT Rule 17.2(a)).

\*Certified copies not received: \_\_\_\_\_

 Acknowledgement is made of a claim for domestic priority under 35 U.S.C. § 119(e).**Attachment(s)** Notice of References Cited, PTO-892 Information Disclosure Statement(s), PTO-1449, Paper No(s). \_\_\_\_\_ Interview Summary, PTO-413 Notice of Draftsperson's Patent Drawing Review, PTO-948 Notice of Informal Patent Application, PTO-152**--- SEE OFFICE ACTION ON THE FOLLOWING PAGES ---**

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## DETAILED ACTION

1. The formal drawing filed on 4/09/97 has been approved by Draftperson.

### ***Claim Rejections - 35 USC § 103***

2. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(a) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

3. Claims 1 and 2 are rejected under 35 U.S.C. 103(a) as being unpatentable over Mizokami et al (U.S. Pat. 5,523,991; hereinafter referred as Yoshida).

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As per claim 1, Mizokami discloses a transmitting method of digital data for retaining digital data in sectors each comprising a plurality of sync frames and sequentially transmitting it as shown in Figs. 2 and 3, wherein: the sync frame comprising a sync signal (24) and a run length limited code which corresponds to the digital data and satisfies limitations of a maximum run length and a minimum run length (col.8, lines 16-38), and the sync signal including a sync pattern of a bit pattern (a pit pattern 25) of a run length, and additional bit patterns which are arranged before and after the bit pattern (col. 8, lines 53-67). Mizokami does not explicitly disclose the run length of bit pattern is longer than the maximum run length by 3T and the run length of the additional bit is longer than the minimum run length. However, it would have been obvious to one having ordinary skill in the art at the time the invention was made to modify the teachings of Mizokami by use of run length of the patterns in the sync pattern for comparing the lengths of the patterns because it permits system to readily recapture a sync frame code that occurs subsequent to the occurrence of a frame sync error to thereby minimize the out of sync period to at most one frame interval.

As per claim 2, Mizokami also discloses the addition bit pattern arranged after the bit pattern has a fixed length (col. 12, lines 47-64).

4. Claim 4 is rejected under 35 U.S.C. 103(a) as being unpatentable over Mizokami in view of Kato et al (U.S. Pat. 4,544,962; hereinafter referred as Kato).

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As per claim 4, the limitations of claim 9 are similar to claim 1 except the sync signal including a specific code indicative of a position in the sector. Mizokami does not disclose this limitation. However, Kato discloses a 32 bits of cycle redundant check code (56) by 4-to-8 bit coding as shown in Fig. 2 for indicating a position in the sector. It would have been obvious to one having ordinary skill in the art at the time the invention was made to indicate the position in the sector by using the 32 bits of cycle redundant check code as taught by Kato because it limits the time to identify frames.

***Allowable Subject Matter***

5. Claims 13-14 are allowed.
6. Claims 3, and 5-12 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.
7. The following is a statement of reasons for the indication of allowable subject matter: none of prior art of the record discloses a connection bit of three bits arranged so as to satisfy the limitations of minimum run length is 2 and the maximum run length is 10 in a connection with the run length limited code existing just before the sync signal; a specific code of seven bits which satisfies the limitations of the minimum run length = 2 and the maximum run length =10 and which has 32 kinds of bits patterns; and sync patterns of run lengths of (4T or -14T - 4T).

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***Conclusion***

8. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure.

Amass (U.S. Pat. 4,124,778) discloses a digital frame synchronizing circuit.

Fujiiie (U.S. Pat. 4,539,667) discloses a disc players for reproducing an information signal from a rotating disc.

Yoshida (U.S. Pat. 4,685,098) discloses an apparatus for reproducing data signal.

Inagawa et al (U.S. Pat. 4,700,337) disclose a control apparatus for a recording medium drive motor in a digital information reproducing apparatus.

Fukuda et al (U.S. Pat. 5,333,126) disclose an information recording method and optical disk apparatus.

9. Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

Washington, D.C. 20231

or faxed to:

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(703) 308-9051, (for formal communications intended for entry)

Or:

(703) 308-5403, (for informal or draft communications, please label  
"PROPOSED" or "DRAFT")

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive,  
Arlington, VA., Sixth Floor (Receptionist).

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Khai Q. Tran whose telephone number is (703) 305-1876. The examiner can normally be reached on Monday-Thursday from 9:00 AM to 5:00 PM.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 305-4900.

KT  
Khai Q. Tran

May 19, 1998

*Chi H. Pham*

CHI H. PHAM  
SUPERVISORY PATENT EXAMINER  
GROUP 2700  
5/22/98